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What gets priority?

■ Conservation of natural resources, farm and home management, and marketing and distribution are the three major problems of the farm people of Livingston County, Mich.

That's what the Livingston County Cooperative Extension office found from returns from 200 farmers and homemakers who answered a carefully prepared questionnaire.

County Agent John T. Stone believes such a poll is a valuable tool for the extension worker to use. "It's a quick, time-saving method of determining current rural interests. It increases farmer participation in planning the educational program and shows the farmers' awareness to many important problems," Stone related in discussing the results.

Stone and his two associates, Margaret Stuart, home demonstration agent, and H. J. Hart, club agent, prepared the questionnaire in an effort to get data for programs of work.

Paul Miller, extension sociologist at Michigan State College, cooperated in framing the questions.

As a starting point they used as a guide the Kepner Committee report (USDA Extension) on the scope of Extension's educational responsibility. Two questions on each of the 9 points were used, making 18 questions in all. Farmers and homemakers were asked to decide the 5 most important problems from the list and then pick out the one of the 5 they considered of outstanding importance.

After grouping returns on the specific questions under the nine original fields of extension education responsibility, here's how the farm people rated the importance of their problems:

1. Conservation of natural resources.
2. Farm and home management.
3. Marketing and distribution.

Conservation of natural resources rated highest priority with 200 farm people of Livingston County, Mich., who voted on their most important local problems. Conservation rates high in many communities—conservation such as that practiced on this 344-acre farm with more than 100 acres of strip cropping and 38 acres of tree planting.

4. Rural organization and leadership development.

5. Economic problems and public policies.

6. Agricultural production.

7. Health.

8. Farm homes and buildings.

9. Social relationships, adjustments and cultural values.

An indication that the wording of individual questions about the same broad problem influenced the rating was shown on the 2 questions on marketing and distribution. "The need for improving marketing of farm products direct to consumer," drew 110 votes or the greatest number of all. Yet its companion question, "The problem of making farm-grown products attractive to consumer" recorded only 30 votes and ranked fourteenth on the list.

More than 20 percent of those farm people answering indicated additional problems or wrote comments at the bottom of questionnaires. County Agent Stone believes the more important problems brought out in a survey of this type can well form the basis for group planning to stimulate action.

That's what is happening in Livingston County today.



Using the balanced farming approach

MILLER CARPENTER, County Agricultural Agent, Carroll County, Mo.

The results of the balanced farming program in Carroll County, Mo., have been more impressive than any other extension activity in the county. Building on a foundation of 30 years of extension teaching, the new approach considers the problems of each farm as a whole, not as separate problems in poultry, or crops, or livestock, or agricultural engineering, or foods, or clothing, or home management. In working out the solution of problems arising on each individual farm, there must finally be a time when all of the help available can be brought to bear on them, each specialist or project contributing according to the importance in the over-all farm operation.

This approach also helps the county agent, for it removes much of the confusion and cross-current stemming from the feeling of each specialist that his project is the most important. Balanced farming to us in Missouri can be the answer and solution to the long-time agricultural problem. It would put soil conservation on the land instead of on paper. We would not have too many hogs or too little corn, because we would have stable production. We would rapidly approach the time when all farm families would enjoy electricity, better roads, better schools, and better churches, because they would have the income and the incentive to support them. The problems of agriculture must and will be settled on the farm by each family according to its best judgment.

The Antecedents

Our program is the logical outgrowth of soil conservation work in Carroll County. The annual report of the extension agent for 1915 tells of the building of terraces on a farm in Combs township and notes that these were the first ones ever built west of the Mississippi River. Through the years the program has emphasized the use of good rotations, fertilizers, and the building of ter-

races. In 1935, through the efforts of the Carrollton Chamber of Commerce and local drainage boards, a Civilian Conservation Corps camp was established to work at cleaning out the drainage ditches. In 1938 this was replaced by a Soil Conservation Service camp which during its 3 years of existence did work on 55 farms. With the coming of the war, this camp was discontinued, but the people still wanted help on soil conservation. Much of the demand for help came from those who had been included in the camp program.

The Plan Is Born

By the winter of 1941 and 1942 the balanced farming techniques were being perfected at the college to the point where they were ready to be tried out, and this method was chosen to give the asked-for help to our farmers. First, series of evening schools were held to interest farmers and their families in making balanced farming plans. Cooperating were the Farm Home Administration supervisor, the representative of the Soil Conservation Service who was stationed in the county completing obligations on the CCC camp farm agreements, the vocational agriculture instructors, a farm credit representative, and the AAA committee.

Four schools met one night each week for a period of 10 weeks and completed 60 individual balanced farming plans. Later, 40 additional plans were completed by students in the high schools under the direction of the instructors.

We all recognized that it would be necessary to give the people additional help in putting these plans into operation, and each one assisting with the school accepted the responsibility for a group of about six farmers with whom he would work actively throughout the year. This did not work too well, because each man had his own obligations and did not get around to doing the extra work. From 1942 to 1945 labor was scarce,

no extension personnel was available to give added assistance to the balanced planners, and progress was slow. But the farms did not forget their plans, and the conviction grew that what they had at first thought was a soil conservation problem was really a complete problem in farm and home management.

At the close of the war, the farm management specialist and I went to Kansas to study the details of a farm management program that had been in operation for several years. We returned and discussed ways and means with the County Extension Board and the college at Columbia. A plan of operation was mapped out which provided that a group of 50 families be established, each paying \$50. This was half the cost of the employment of a county agent who would spend full time helping them develop and put into operation balanced farming plans.

Mr. Ray Hargrave, a returned veteran and a Missouri county agent of 10 years' experience, was employed. The extension board, believing that in the interest of efficiency and simplicity the program should remain a part of the general extension program, recommended to the group of cooperators that they elect a committee of three people who would in turn serve as the balanced farming sub-committee of the extension board.

Balanced Farming Grows

The budget for the operation of the original group and for most of the 32 groups now operating in Missouri was for \$5,000. which provided for the agent's salary, travel, secretarial help, and incidental expenses. One-fourth of this is from the College of Agriculture, with three-fourths from the cooperators. Sometimes local businessmen pay one-fourth, and cooperators pay one-half. The home agent was to help with the home plans, working in consultation with the associate agent in charge.

The 108 farms in the Carroll County balanced farming group vary from 78 acres to 1,520 acres. Some are owner operated, and some are farmed by tenants. Some are fully paid for, and on some the indebtedness runs as high as 75 percent of the value of the land. They are just typical farms of the county.

The results so far are encouraging. For example, 120 miles of terraces have been built. This is 2½ times as many as had been built altogether on these farms before—actually five-sixths of all the terraces built in the county. Most of these terraces are built by contractors because farm operators have found it is cheaper and better than attempting to build them themselves.

Most Carroll County land needs lime. On the 108 farms the annual consumption of lime averages 9,079 tons per year as compared to 2,679 tons before planning. Balanced farms use three times as much limestone as do other farms. One-fourth of all the fertilizer used in the county is on these 108 farms. They are using half again more fertilizer than they did before planning.

The use of a corn, oats, and sweet-clover rotation is one of the important features of a balanced-farming crop rotation. The acreage of clover plowed under for green manure has almost tripled since planning started. This practice has also spread rapidly to other farms in the county. This year I have been amazed to see how many people are doing it.

Crop production has been about doubled, due to higher yields and more frequent grain crops in rotation. Most of the farmers are finding that their balanced-farming pasture increases their carrying capacity by about 100 percent. On smaller farms poultry offers a good source of income. Egg production on these farms has gone as high as 234 eggs per hen per year as compared with the county average of less than 150. Twice as many members of the group are putting their chickens on clean range, and range shelters to house pullets and young stock on the range have increased four times. This practice is also spreading rapidly to other farms as well.

Similar improvements could be quoted for orchards, hogs, and sheep raising, vegetable gardens, and other farm enterprises included in the balanced farming plans.

Improvements in the home are included in the plans as an important factor in satisfactory living on the land, which is the main objective of balanced farming. Electricity, new

water systems, bathrooms, and remodeling are conspicuous in balanced farming plans.

This group of farmers spent \$127,286 putting their balanced farming plans into operation. They spent money for new machinery, home improvement, water systems and supplies, soil conservation, and similar projects. This figure interests the businessmen in our county.

Balanced farming in our county has increased the total effectiveness of the extension program more than the one or two additional workers would indicate. Each of the farms demonstrates improved practices to all farmers of the county. Balanced farming offers each farmer an opportunity to choose his own course. It is democracy's free enterprise system in operation. In balanced farming we have in our hands the means to help farmers reach maximum efficiency of production, maintain prosperity, and build a strong rural America that will be the bulwark of stability for our Nation and for the world.

Coloradans go in for building

Helen Prout, State home demonstration leader, and Orville J. Trenary, extension agricultural engineer of Colorado opened the housing campaign in their State with a series of several radio broadcasts. A thirteen-county spot survey conducted by the engineer with the help of the home demonstration clubs showed that one out of five rural residents planned to build a new home in the next few years and most of the others were thinking about remodeling. With the valuable information obtained from the survey on what changes and new buildings are planned and what help is needed, the series of broadcasts discussed subjects pertinent to the immediate problems of rural builders and told where additional information could be obtained. This series is being followed up by strong local housing programs sponsored by the county agricultural and home demonstration agents.

Dramatizing the United Nations

■ A skit explaining the United Nations organization was a feature of a district home demonstration federation meeting at Woonsocket, S. Dak. Nellie McLoughlin, assistant State home demonstration leader, was the narrator. This program was also used at seven other district meetings, and the script was made available to all home demonstration agents who want to use it for achievement

days. This is a development in the "Reading in the Home" program which South Dakota clubs have carried on for the past 19 years. The director of the State Free Library Commission compiled last year's reading list, "America Looks Ahead," and the extension far economist, Lyle Bender, prepared the discussion topic on International Trade for the use of home demonstration clubwomen.



Director R. J. Baldwin retires

■ Back in 1910 a young instructor at Michigan Agricultural College at East Lansing, Mich., was called into the office of Robert Shaw, the dean of agriculture. He was assigned to a new job as assistant to the dean. One of his responsibilities was that of supervising the "field agents."

Although since 1876, farmers' institutes had been held each winter, that was the birth of the present Extension Service in the Nation's first college to teach agriculture as a science. And that, too, was when Robert J. Baldwin became head of Michigan's Extension Service.

In 1910 there were 3 so-called "field agents" who were helping with county farmers' institutes in Michigan. On July 1, 1948, when Director Baldwin retired as the head of Michigan's cooperative extension program, the staff included 280 persons. The program reaches more than 60 percent of Michigan's farm families.

Director Baldwin's opportunities for formal education in his boyhood days in Sanilac County in Michigan's "thumb" district were limited. He took all the grade school, the "little red schoolhouse" of his farm community near Brown City, offered; but it was 7 miles to town, and transportation wasn't as easy as it is now. There was plenty of work on the farm, but this young lad read and studied in his spare time.

Back to the Home Farm

Several years later he made a trip to East Lansing to enter college. He had never attended high school. So, at the turn of the century, he got into college the hard way—by taking an entrance examination. His hopes were high when he graduated with a degree in agriculture. He headed back to the home farm to put into practice what he had learned.

Then came the turn of fate that prevented this young man from following a farming career and made possible his entering a field in which he has served three generations of Michigan farm people. He was stricken with infantile paralysis.

He took graduate work and prepared for the teaching profession.

After 2 years teaching science in Traverse City High School, he returned to Michigan Agricultural College in 1910 to teach geology. Within 2 months he was named to supervise Michigan's extension program.

When the Cooperative Extension Service was formed in 1914, Michigan switched its home-grown program over to comply with the Federal plan; and Director Baldwin has been the only man to head the program in Michigan.

His long experience and service took him to every nook and corner of Michigan. It gave him a thorough understanding of the possibilities of even the poorest land left desolate by the timber slashing of the late nineteenth century. As chairman of the State land-use planning committee he gave much effort and thought to development of each county to the limit of its natural resources.

Michigan's soil conservation program started soon after the end of the first war. Through the leadership of Director Baldwin, an alfalfa program increased acreage from 70,000 acres in 1919 to 1,200,000 in 1939.

A Michigan newspaper cites Director Baldwin as "the man who led Michigan farmers to a top place in two world wars in the production of foodstuffs for the Nation."

Eager and willing to accept new ideas, Director Baldwin continuously sought new ways of bringing the teaching program to the farm people. Within a month of retirement, he eagerly accepted an opportunity to use a new "tool"—television. That recalled to his mind his first appearance on radio—26 years ago when WKAR, the Michigan State College station, started.

"Regular radio transmission was just as experimental then as television is today. Television is a new 'tool,' and we must find a place for it in our 'kit' of teaching and information techniques," the director remarked after he took part in the program over a Detroit station.

Director Baldwin expects to spend his retirement in doing things "I always wanted to do and never had the time to do." His basement workshop,



Convinced that Michigan's Cooperative Extension Service is being left in experienced hands, Director Baldwin (right) talks with his successor, Director C. V. Ballard, about proposed additions to the staff.

where he renovates antique furniture and makes interesting articles from rare pieces of wood, will probably occupy much time. With Mrs. Baldwin he expects to spend some time traveling, visiting with their three children and grandchildren.

If time permits, Director Baldwin may spend some time writing. Friends have urged him to write on the philosophy of the cooperative extension program. This is a subject he taught many years in the school of agriculture and which had much to do with influencing young men and women to follow Extension as a career.

■ "Pure drinking water in every well" is the goal set forth by home demonstration club women of Liberty County, Tex.

Helen Swift, sociologist for rural women's organizations, Texas Extension Service, reports that this ambitious goal was set by the clubwomen following a check-up on the purity of drinking water in the homes of Liberty County club members.

Working with the State Health Department, the women sent off samples of drinking water from 89 wells. Sixty-seven of the samples were found to be contaminated. Club members followed the recommendations of the health department in cleaning the wells and then resubmitted samples for a second clean-up. Nettie Smith, Liberty County home demonstration agent, says the final goal is to have all wells tested and furnishing pure drinking water in communities where home demonstration clubs are active.

The hidden values

M. L. MOSHER, Extension Economist, Illinois

■ Most of us who have been in extension work for a long time are familiar with the "hidden" or indirect benefits of our educational efforts. We know that one direct contact with a farm man or woman often leads to many indirect contacts.

Seldom, though, have I ever seen such a dramatic example of this process as the one in the story of the Honneger brothers of Livingston County. Through direct contact with the Honnegers, the Illinois Cooperative Agricultural Extension Service has reached hundreds and possibly thousands of farmers in Livingston County and the surrounding area. This is the story:

Back in 1932, the Honneger brothers were good farmers who did a job in managing their 240-acre farm. They belonged to the Pioneer Farm Bureau Farm Management Service and kept complete records in cooperation with the University of Illinois. In those days, the Honnegers were primarily interested in grain farming and their dairy and hog enterprises. They kept about 100 hens, a "pin money" flock. But something happened to change the farming operations of the Honneger brothers—and it changed the farming in Livingston County.

The Seed Is Planted

Jerry Andrews happened along in 1933. As field man in the Pioneer Farm Bureau Farm Management Service, he visited the Honneger brothers' farm on a regular visit and pointed out to them that they were getting more returns for feed and labor used on their average-size poultry flock than from the same amount of feed and labor going to dairy cattle and hogs. The Honneger brothers did the rest.

Cooperating with the people in the experiment station and the Extension Service, they have developed a business which provides the people in Livingston and many surrounding counties with strong chicks from high-producing stock; a good quality of feed to supplement the corn and oats

raised on their farms; a good marketing service; and a lot of "know how" information. They apparently have made money themselves, but for every dollar of profit they have made, my guess is that the farmers who patronize them have profited by several dollars. Most of those who have established the larger flocks during recent years are on the smaller farms of the area. Poultry enables them to make profitable use of family labor that is available and unused on the farms without poultry. A study of the records in Livingston County shows that farms that have more than 300 hens make much more use of family labor than farms having fewer than 200 hens.

Now, you might ask, "What has this got to do with the hidden values of extension work?"

It Bears Fruit

Late this spring, the Honnegers held a banquet to honor their best customers. We made a little study of what had taken place in the poultry enterprise in Livingston County, and this is what we found:

In 1932, the poultry project on the Farm Bureau Farm Management Service farms in Livingston County was about on a par with that on farms in McLean, Tazewell, and Woodford Counties. Of 46 farms in Livingston County, 8 percent had from 200 to 300 hens per flock; and of 75 farms in McLean, Tazewell, and Woodford Counties, the same proportion, 8 percent, had 200 to 300 hens. There were no flocks with more than 300 hens in any of the 4 counties. The Honneger brothers' flock had 101 hens. However, in 1947, 28 percent of the flocks in Livingston County had more than 300 hens, and only 16 percent had fewer than 100 hens. On the other hand, only 6 percent of the flocks in the other 3 counties had more than 300 hens, and 43 percent still had fewer than 100 hens. Something had happened to increase the interest in poultry in Livingston County that had not happened in the 3 other counties.

The average egg production on Liv-

ingston County farms in the farm management service increased from 114 eggs per hen in 1932 to 199 eggs in 1947—an increase of 85 eggs—7 dozen per hen. The average production in the other 3 counties increased from 107 eggs per hen in 1932 to 161 per hen in 1947—an increase of 54 eggs per hen. The increased egg production was 31 eggs per hen more in Livingston County than in the other 3 counties. Something had happened to increase the egg production in Livingston County that had not happened in the other counties.

Today thousands of farmers in Illinois are buying high-quality chicks from the Honneger brothers' hatchery; chicks from stock produced under the supervision of one of the good poultry breeders of the country. Many of the same farmers and unknown numbers of others are buying carefully prepared poultry feed from the Honneger brothers' feed mill which was operated in a small way even before the poultry business was established. Trucks gather the eggs produced by the good hens fed with the good feed and bring them to the old dairy barn on the farm south of Forrest where they are graded and sold on special markets.

Truly, that "extension seed" that Jerry Andrews planted in 1933 has grown to a program that has meant a higher level of living for thousands of farmers as they are found up and down the roads of Illinois.

Writes successful column

A daily column in the Beaumont, Tex., Enterprise, called "Garden Notes," is rated high as an extension method by County Agent J. F. Combs. The column treats of timely vegetable and flower garden matters and offers bulletins and garden guides from time to time. A letter from the agent reported "about a dozen letters today and I believe about that many yesterday. Every mail brings letters of problems discussed in Garden Notes, and we have received as high as 28 letters in one mail."

Agent Combs lays the credit for the column's success to the fine cooperation of the local daily paper and its farm editor, Sam Whitlow.

On writing the report

E. R. Jackman, Oregon's farm crops specialist, who recently broke into the Saturday Evening Post brotherhood of writers, when faced with the necessity of writing his own report introduced it thus:

■ First I read again the "suggested outline" which calls for "examples and results," "methods especially helpful," "methods used to measure success," "use of teaching devices," and "major activities and accomplishments." Obviously, if I followed this outline, I would have a good report. It would convey to readers a very clear idea of the writer's degree of mastery of his professional skills. I hope someone, somewhere, does follow it.

But when I start to write the report, whether with or without benefit of outline, I begin to feel a little like Edward Lear who said that at one period of his life he went about Europe committing frightful discrepancies. It seems somehow that there is a wide discrepancy between every worth-while accomplishment and the telling thereof.

Perhaps the secret of a good report lies in a thing I learned in a college English course many years ago. I really admired the way the professor put it: "Corroborative detail lends verisimilitude to an otherwise bald and unconvincing narrative." Maybe our reports fail in these corroborative details and hence become bald if not downright unconvincing.

We work with people. People do the strangest things. They suddenly, at the height of success, throw themselves headlong from handy high buildings. For some imagined slight they repay a lifetime of devotion with the bitterest invective. They are prouder of the ability to wiggle their ears than the ability to move moun-

tains. People do not regularly follow prescribed formulas for living and thinking. This makes extension work infinitely tougher—and lots more fun.

We initiate a program, overcome inertia, arouse interest—and run smack into a couple of full-blown jealousies that, with the greatest of enthusiasm, delight in cutting off noses to spite faces. So, in spite of fine "teaching devices" and splendid "educational methods," we are forced to find a way around, over, or through before our program can succeed. Somehow the books aren't very helpful. One may study marketing methods assiduously and fail to find an answer on what to do when Martin Green, the biggest producer, pulls out of the co-op because the manager hired the daughter of Bill Jones.

Maybe the successful patching of the quarrel between Martin and Bill is the biggest and best job the specialist did during the year. Maybe it was accomplished only by dint of activities far outside the specialist's field, demonstrating versatility of a high order. Anyhow, it is the sort of corroborative detail that might lend verisimilitude all right but might also kick up a peach of a row if put down on paper. So the report becomes unconvincing.

I am reminded of an early day county agent in Oregon who took a job in a range sheep county heavily populated by fighting Irishmen. He reported as his outstanding extension job of the year: "I licked an Irishman. Now they all call me mister." It was true, and it helped to establish the work on a sound basis in the county for all time; but it doesn't seem to fit in anywhere on the suggested outline.

The very busiest extension workers are likely to have a sort of unvoiced, sneaking suspicion that the fellow



who writes the longest report most nearly conforming to the outline is the fellow who hasn't too much else to do. This may be true in some cases, distinctly unfair in others. At any rate, it is comforting to the writers of the poor reports.

The biggest handicap in report writing lies in the nature of the specialist's job. Essentially, he is the leader in his field, and the nearer he approaches that ideal the better he is likely to be as a specialist. But right there comes the block. By history, theory, and practice the county agent is the important man in the extension army. The specialist is there *only* to make the agent's work more effective. Hence the successful specialist *isn't* the leader in the eyes of the people of the county; the county agent is. The best specialist then is the one who can, often by indirect means, teach the agent the most. If he can teach all of the county agents in the State, make the work of each stronger, get them all to work on a unified program, help develop farmer leaders in this program, and at the same time remain sort of anonymous, then he is a real humdinger, maybe too good for this world.

This matter of teaching is not at all concrete. The specialist can't very well report "by my qualities of inspirational leadership I was able to . . . etc." It would be both bald and unconvincing, no matter how corroborative the detail.

So the specialist, with enforced silence about his best work, acutely aware of his shortcomings, uneasy about the many things left undone, harassed by the necessity to report something, may occasionally write a report of the kind *not* heard around the world.

■ Mrs. Mary Wetzsteon and Frances Young, clothing specialists at the College of Home Economics at Cornell, were particularly pleased with the excellence of the workmanship displayed in the State 4-H dress revue last year.

The 50 girls who walked across the stage of Martha Van Rensselaer Hall in the ensembles they had created showed rare judgment in their choice of materials and patterns to suit each one's personality, coloring, and figure.



Newspaper stories boost interest

Colorado farm women tell of their work through news stories sponsored by the County Council.

■ "Owing to the cooperation of the very active home demonstration women and the editors of the two outstanding papers cooperating with the home demonstration agent, Roberta Lascelles of Logan County, families are now more aware of the activities of the rural home demonstration women than ever before," says Helen Prout, State home agent, Colorado Extension Service.

It all came about in a home demonstration council meeting early this spring when representatives of the Logan County home demonstration clubs talked seriously about what could be done to acquaint more people with the program of home improvement which was going on in their very midst. The program of remodeling, interior decorating, better food preparation, economical clothing construction, improved home and community recreation, and the study of personality development of children—all this was going on, but there were still too many women that didn't know about it, the council members argued.

A Meeting Plus the Newspaper

First they invited the uninitiated public to have tea with them at a county-wide affair. On the day of the tea the exhibits of home demonstration work were shown in downtown windows. The second attack was to be through the newspapers!

Farm Women Become Reporters

The executive committee of the county home demonstration council followed through on this. The Highway-Fyffe Home Demonstration Club was selected to take care of the publicity. Under the chairmanship of two farm women, members of this club, letters were written to the 15 home demonstration clubs in Logan County asking for group pictures and stories of their activities. Several of the groups sent pictures, and others sent stories telling of their achievements. Many hours were spent by these two women in compiling this in-

formation so that it was in newspaper form, with the advice and help of Miss Lascelles.

The stories were presented to the Sterling Advocate editor who ran one every day during National Home Demonstration Week. The stories were also presented to the Sterling Farm Journal editor who took the pictures and stories and prepared a full-page layout on home demonstration news. Because the home demonstration

agent worked closely with the editor in preparing this lay-out the women were very excited in anticipating its appearance.

Since the appearance of this page, 3 new home demonstration clubs have been organized in the county with approximately 35 new members who are striving to improve their homes and communities by the use of better methods.

"An agent can measure the success of such a project only by the reaction of the public later on," says Miss Lascelles. "Already many inquiries about extension work have been made by women visiting the office."

Extension dairyman honored

■ The tenth anniversary celebration of New Jersey Cooperative Artificial Breeding Unit No. 1 at Quakertown, N. J., turned into a surprise testimonial for Enos J. Perry, extension dairyman. Perry is holding the large silver bowl to be awarded in his honor each year on a rotation basis to the 4-H Club member showing the best artificially bred heifer at the State 4-H dairy club show, and its

smaller replica to be awarded permanently to each winner. Over his arm he holds a hand-painted tie with a portrait of a bull presented by Max Drake, president of the National Association of Artificial Breeders. Holding the almost life-size photograph of Perry with a fatherless Jersey is Perry's colleague, Elmer C. Scheidenhelm, also dairyman at Rutgers.



History checks our plans

F. L. BALLARD, Associate Extension Director, Oregon

A backward look at the economic planning conference of 25 years ago in Oregon shows the pattern of agricultural development fairly well forecast. Director Ballard tells how the recommendations of that day fit into the actual situation in the growth of the dairy industry. This is the first of two articles by Director Ballard describing a study of changes in Oregon agriculture during the past 25 years and what they mean to extension workers.

■ For a long period the major part of the time of members of our staff has been devoted to teaching agricultural and home economics subject matter in support of certain State-wide programs. These programs have been worked out by the farm men and farm women of the State and were based to a considerable degree upon information furnished them by the Extension Service.

The Oregon Extension Service, however, is by no means the only source of factual material which the rural people have used in formulating these programs. They have consulted other State and Federal agencies, representatives of distributive organizations including transportation, and many other sources.

This type of program planning started in the early 1920's; and now, after a little more than 25 years, it seems timely to give examination to Oregon's agricultural program with some special emphasis upon an effort to determine the extent of the effectiveness of the planning. It seems reasonable to start with the Oregon production pattern as disclosed by the census of 1920. The census figures of 1945, coming after a 25-year interval, likewise seem suitable as a basis for comparison. Examination of the official figures of Oregon's agricultural production discloses some startling changes within this period. Examination of some of the programs decided upon by the farmers in the early 1920's indicates that many of these production changes have been along the lines suggested at that time; hence may be considered to a substantial degree as a measurement of the effectiveness of program planning.

A satisfactory starting place for review of the programs which have

characterized this 25-year period is the report of a meeting of about 400 farmers and others interested in agriculture on the campus of Oregon State College in 1923. This meeting was called an economic conference, and its main purpose was to present for State-wide consideration the conclusions of a number of committees which had been meeting for some months to study various areas of the State's agriculture.

All this had come about because it seemed that Oregon's agricultural development was entering a new and distinct period. We had passed through World War I and the unsettled conditions following it. There had been a period of inflation followed by a short depression in 1921, and there were some very new factors affecting the agricultural picture. Among them were these: The State had since the wartime period become an exporting State for dairy products. Likewise in this period it had become an exporting State for eggs. There were large acreages of apple and prune orchards resulting from the boom plantings of 15 to 20 years before which were recently in heavy production. A start had been made in the production of certain specialty crops such as small seeds and bulbs. Therefore, the question of markets for Oregon farm production was assuming increasing proportions and new angles. This was the basic reason for organization of a long list of committees consisting of farmers, dealers, and others to survey marketing as well as the production possibilities of the State.

Even at that time the Willamette Valley counties were placing annually some 60 or more agricultural products in commercial channels. The ques-

tion in this region, and to a lesser extent in the five other type-of-farming regions of the State, was what of this long list of adapted products could be sold outside the State to best advantage.

A review of the conclusions of these committees as presented and approved by the State-wide conference is now exceedingly interesting when one makes a comparison between the two production patterns as disclosed by the census of 1945 and the census of 1920.

The committee on dairying in that distant time concluded that the dairy industry was a sound one for most parts of Oregon and that it should be increased. California was a nearby and excellent and, undoubtedly, long-time market, as it pointed out. It was further disclosed that this was a market for butter and that demands there were for a high quality. Recommendation, therefore, was that farmers of the State should develop dairying as a major enterprise, that there should be marked improvement in the quality of output, that there should be built up a system of local cooperatives with a central selling agency, that there should be improvement in butterfat production per cow, and that investigations on the control of contagious abortion, or Bangs' disease, or brucellosis, as it is now called, should be continued.

This Is What Happened

It is appropriate now, I believe, to examine the dairy situation as is disclosed by the census of 25 years later supplemented by personal observation and understanding. By 1945 the number of dairy cows had increased 42 percent; quality of production had been built up so that representative samples in butter scoring contests recently indicated only 0.2 of 1 percent graded below 90 score with 61.4 percent over 92 compared with 20.5 percent below 90 score and only 7.8 percent above a few years ago; a system of local cooperative creameries had been organized and a central selling agency, Interstate Associated Creameries, was operated to sell the surplus of these creameries, largely in California, until into World War II period; and investigations of brucellosis had been conducted and a method of eradication which is recog-

nized as standard throughout the United States had been developed. When World War II broke out, 17 counties of the State were accredited free areas. Because of emergency situations during the war, this movement has temporarily slipped backward, but progress undoubtedly again will be resumed. Perhaps most improvement of all, however, was in the butterfat production per individual cow. This was officially established at an average of 189 pounds per cow in 1920 and by 1945 this average had been increased to 249 pounds.

Some of these advances in the dairy industry probably would have occurred

without the program-making meeting of 1923. It is questionable, however, if they would have advanced nearly as rapidly. The objectives in view, and the methods of attaining them, became a part of the thinking of thousands of farmers as they planned their work from year to year. The principles set out were more or less formally adopted by groups of farmers in all counties of the State where dairying was important. It seems sure that this unified thinking as to objectives and methods greatly hastened the time of reaching the accomplishments which I have pointed out.

attended a joint meeting of the home demonstration and agricultural councils and heard the agents talk about housing facilities. Talking to the agents after the meeting, he got just the advice he needed and 3 plans from which to choose in building.

The next year he began to cut logs from his farm forest and hired a carpenter to start his extension home, Plan No. 5545 from the State Extension Service. It was slow; but the family, with the help and encouragement of the agents, made some progress each year and has recently moved in, with the house wired for electricity and definite plans to put in running water within a few months. Reverend Hocutt estimated that if he had had to buy all the lumber and pay for all labor his new home would have cost him more than \$7,500, which is much more than it did cost him.

There are more than 1,550 farm families in the county and 1,224 farm operators, and these more than keep the 2 agents busy. But they have seen a steady increase in cows, gardens, and chickens. Their program for men and women, boys and girls has included better health and convenient living, diversified farming, increased production of corn, small grain, hogs, gardens, and hay, a cow on every farm, adequate homes, more use made of scientific facts from experiment stations, more modern farm machinery, and the 4-H—membership, citizenship, partnership, and ownership.

Negro farmers are going places

When you pause to look around and see what has been done and where you are going, you may find some encouraging facts just as did L. R. Johnson, Negro county agent for the past 4 years, and Mrs. Lucy O. Toole, Negro home demonstration agent for the past 12 years in Johnston County, N. C. For example, the county auditor's report showed that 348 Negro farmers owned their own farms in 1946 whereas only 150 owned farms in 1940. Extension work has certainly contributed to this trend. In the past 5 years, more than 3 times as many boys and girls joined 4-H Clubs, with 825 young folks carrying 1,470 projects last year. You can see the evidences of their work in many places.

This is encouraging, but the agents went further and found more specific signs of better living. A home-im-

provement program started in 1944 grew to such proportions last year that 39 new homes were built, and 338 others added rooms or made repairs. Figures alone do not tell the story. To know what it means you have to see what the Rev. J. T. Hocutt of White Oak community has done to improve his living conditions since the home-improvement program started.

Reverend Hocutt had realized for some time that his 3-room home was inadequate for his family of 12 and planned a new 8-room house. He thought that he and his children could build it. But when he tried to get started everyone discouraged him from such a venture until in 1944 he

From a three-room tumbled down shack to an eight-room modern farm dwelling is the home-improvement progress of the Reverend J. T. Hocutt, of Middlesex, Route 1, shown with his wife and 10 children in front of the small house they lived in last year.





Pioneer director dies

DIRECTOR B. H. CROCHERON of the California Extension Service died July 8 from an acute coronary attack. He is survived by only one close relative—a sister, Mrs. Harold W. Fitch of West Hartford, Conn.

In the passing of Director Crocheron the Cooperative Extension Service loses another of its pioneer leaders. He made a number of historical contributions to the development of extension work.

His first appointment with the Department of Agriculture was on September 1, 1913, when he became an agent of the Office of Farm Management of the Bureau of Plant Industry, before the passage of the Smith-Lever Act. He went to California under the Bureau of Plant Industry appointment and there became State leader of county agent work and 4-H Club work at the College of Agriculture, University of California. On March 1, 1919, he was made associate director of extension; and on July 1 of that year he became full director, which position he held until his death.

He was born in Jersey City, N. J., the son of David E. and Flora V. (Hanford) Crocheron, and was reared in the country. He graduated from Cornell University in 1908 and received his M. S. A. degree in 1909. He managed a fruit farm in Maryland and a 7,000-acre farm in Virginia, and spent 4 years as principal

of the Agricultural High School of Sparks, Md.

In 1929 Director Crocheron led a fact-finding commission, sponsored by the University of California and the United States Department of Commerce, to investigate the markets for California fruits and canned

products in eastern Asia. The trip entailed a study that led around the world.

At its annual meeting in Chicago in 1947 the American Farm Bureau Federation presented a gold medal award to Director Crocheron for distinguished service to agriculture.

Problems of rural buyer

■ Emphasizing through its extension program closer manufacturer-retailer-consumer cooperation, Iowa recently included a farm apparel conference as a part of its annual spring extension conference.

The meeting pointed up problems farm families face in buying shoes and clothing, with manufacturer, retailer, and mail-order house representatives conferring with State and county extension home economists.

On behalf of rural Iowa homemakers, county home economists Lila Hood, Black Hawk County; Lola Stelpflug, Plymouth County; and Belle Cornelison, Ringgold County, presented buymanship problems. Three areas were represented—one with a good shopping center, one where incomes are good but where there is no large shopping center nearby, and one where incomes are lower.

Consumer needs and problems in these areas were much the same, the group concluded. Iowa homemakers would like more complete labeling, county home economists reported. More detailed information would make comparison of similar articles easier. Labeling to show features available in the same type of garment at different price ranges would be helpful also. Interest in standardized sizes and desire for better fit in shoes were indicated.

There is a need for realizing the value of cooperation with local stores, the county home economists pointed out. Homemakers often fail to make actual requests to retailers for features they want in ready-made clothing. Yet it is only through their requests that the manufacturers can know their desires.

Representatives of three apparel groups discussed steps which are be-

ing taken to answer some of the problems of consumers. Knowledge of the helps already being offered, they said, assists the homemaker in getting what she wants. Too often customers come to the store lacking knowledge of the meaning of terms to be found on labels.

Berneice Dollnig, director of consumer education of a mail order store in Chicago, presented to the group items of women's apparel in various price ranges. She discussed points to look for in the garment and on the label for more satisfaction with clothing purchased.

Shoe buymanship was discussed by B. E. Edscorn, educational director of the St. Louis branch of a shoe company. Beyond a certain range, he said, style accounts for prices in women's shoes. Any new trend, such as the present one toward closed toes, involves the making of new lasts and is, therefore, expensive and takes place gradually. Knowing something of the construction of children's shoes, it was shown, can be of valuable help to the homemaker in wise buying.

Mary Omen, fashion coordinator for a chain department store, called attention to the basic points in construction which make for better wear in men's clothing. The group examined coveralls, overalls, and work shirts. Miss Omen discussed the steps which have been taken to insure good fit in these garments and pointed out the need for knowing necessary measurements when purchasing work clothes. Some blue shirts, she said, are being made colorfast by vat dyeing as a result of the requests of clothing specialists for this feature. Helpful suggestions were also given for buymanship of well-fitting, long-wearing dress clothes for men.

4-H teen tour popular

■ Thanks to a 4-H teen tour, many rural girls of Massachusetts visit historic Boston each year for their first glimpse of women in the world of business.

Coming largely from the inland farms and villages of the Bay State, the girls find all the careers they have read and dreamed about spread before them in one vast city.

Needless to say, "word has spread" of the magic to be found in touring Boston's famous sites until the third annual teen tour, completed recently, drew a record attendance of 350 girls from the 12 counties of the State.

That natural appeal of the Bay State Teen Tour has spread through farm and city and into the State House. This year the girls were welcomed by Gov. Robert F. Bradford and Commissioner of Agriculture John Chandler.

In addition, home economics experts—former 4-H Club members—greeted the girls in a discussion of careers. Leading this section of the program were Dorothy Crandall of the Garland School of Homemaking in Boston; Dorothy Brickman, director of volunteer services in Beth Israel Hospital, Boston; and Vera Peoples, Worcester Trade School instructor.

The Boston 4-H Teen Tour was pioneered 3 years ago by Tena Bishop and Marion Forbes, assistant State club leaders. Since that time Miss Forbes and Miss Bishop have ironed out the majority of the thousand and one headaches which accompany such a venture.

Designed with "careers" as the theme, the tour includes museums, hospitals, department stores, and historical high lights.

Says Tena Bishop: "Much of the credit for the success of our teen tour should go to the county club agents. They make the plans back in their home towns, and all the girls are accompanied by agents or local leaders."

Offering other suggestions, Marion Forbes adds that "the teen tour is open to any 4-H girl in high school. Each pays her own traveling expenses and luncheon. The girls also preside

at the general meetings, lead group singing, and take care of little items like making place cards for the head table."

This year as previously, girls from distant counties arrived the night before the tour, and had the added pleasure of attending a theater to see one of Boston's noted plays.

An assembly program in the State House auditorium started the day's activities—highlighted by greetings from Governor Bradford and Commissioner Chandler. Honored guest was Senorita Alicia Salas, of Ecuador, visiting the United States on a schol-

arship to study 4-H and home demonstration work.

Dividing into groups of 20 girls each, the teen agers set out for their tours immediately following the assembly. Guided by department managers, the girls attracted considerable attention and favorable comment. Each wore a small white ribbon pinned to the shoulder, bearing the words in green, "4-H Teen Tour."

As a special treat, eight delegates appeared on broadcasts from Boston's leading radio stations. Recordings were made of two programs for future reference. These transcriptions have since been used at numerous county meetings—for the girls back home who were unable to attend.

Girls from distant counties arrived in Boston the night before the big event. These delegates and leaders are from Essex County.



Perfect and beyond

In Arkansas we figure percentages of farm women reached by home demonstration club membership by dividing the number of home demonstration club members by the number of farm families living in the county. The assumption is that, on the average, we will find one adult woman in each farm family.

Recently, however, one of our assistant home demonstration agents in charge of Negro work, Ruby O. Harris of Rison, came up with a bona fide

membership of 613 women; and when we figured out that percentage on the basis of 461 Negro farm families in the county, we found that she was reaching 133 percent of the Negro women.

We had felt rather proud of our previous high percentages of 60 percent or more but felt that Ruby's figure was beyond our perfect. Practically 100 percent of all farm women were enrolled and in addition there were 160 nonfarm women.—Mrs. Esther G. Kramer, District Home Demonstration Agent.

Graduate course in home furnishings

■ A long-felt need of extension work is being filled at the College of Home Economics, Cornell University, where a graduate course for home furnishings specialists was introduced this spring by the department of housing and design.

The new course, for extension workers only, drew nine women from seven States and Canada who wish to specialize in home furnishings teaching but who felt inadequately prepared. The advanced course of study was inspired by the Nation-wide demand for qualified specialists in this subject, one of the most popular of current home demonstration projects. Heretofore, available training at a college level has been limited to elementary courses for undergraduates.

The course will be repeated during the 1949 spring term at Cornell and during one term each year thereafter. Extensionists interested in registering for next year may write to Virginia True, head of the department of housing and design. It is urged that applications be entered soon as Cornell's graduate quota for next year is rapidly being filled.

The program for this year's course was taught by Florence E. Wright, associate professor, who has made an outstanding record in New York State extension work in the last 20 years. Each year the course will be in charge of a furnishings specialist from the department of housing and design.

Next year it will be taught by Miss Charlotte B. Robinson.

Subject matter and methods of presenting it to the public are emphasized. The subject matter includes practical instruction in basic principles of color and design and methods of developing color schemes in the home. Students are given training and experience in mixing paints for walls, woodwork, and furniture; selection and purchase of wallpaper, fabrics, and floor coverings; refinishing and upholstering furniture, and making slip covers.

Several class periods are conducted in cooperation with the College of Home Economics editorial office when the students study fundamentals of writing newspaper releases and writing and presenting radio scripts.

The Ithaca community has been cooperative in giving the class opportunities for practical lecture-demonstration experience. This spring, members have spoken and demonstrated before several Ithaca women's clubs and 4-H groups. The largest Ithaca department store sponsored in its draperies department a lecture-demonstration by one of the students.

Much of the field work consisted of working with groups of women in their homes. Meetings were arranged by the local home bureau. The students also assisted with preparing and manning exhibits during Cornell's annual Farm and Home Week in April.

Students in the Cornell graduate course in home furnishings work on their final project, upholstering and refinishing furniture.



This year's students, all college graduates, are: Mrs. Ruth P. Ristich of Carroll County, N. H., a former home demonstration agent; Eva Marie Williamson, home demonstration agent in Jackson County, Ohio; Irma Bamesberger, on leave from her work as home furnishings specialist in Massachusetts; Helen Boettcher, former home demonstration agent in Williams County, N. Dak.; Elsie Marco, home economics instructor, Windham High School, Willimantic, Conn.; Mildred J. Flanagan, home demonstration agent, Howard County, Md.; Coral K. Morris, former home demonstration agent, Crawford County, Pa.; Kathleen Taggart, home furnishings specialist, Province of Ontario, Can.; Helen McKercher, Women's Institute Branch and Home Economic Service, Ontario Department of Agriculture, Toronto, Ont., Can.

On the food question

■ Statistics prepared by L. H. Burton, Arkansas extension horticulturist, estimate gardening costs, including labor, for an Arkansas farm family of five at \$182. But the food produced would have a sale value to the farmer of \$456, a retail store purchase price of \$912, and would cost the family \$1,642 if the meals were purchased in a restaurant.

Does gardening pay? These figures talk when that question is asked.

Closely following on the heels of the Arkansas gardening program is the canning program, according to Blanche Randolph, food preservation specialist. Miss Randolph points out that for the 62,225 families reporting on food preservation, canning continued to be their most widely used method. More than 17,608,000 quarts of food were canned in 1947, or an average of 390 quarts for each family reporting.

To help families with their food preservation problems, home demonstration agents and local leaders gave 1,763 method demonstrations, tested 14,996 gages on pressure canners, and showed 12,224 people the proper care and use of canning equipment.

Approximately one-third as many families reported preserving food by freezing as by canning.

Public problems need attention

J. S. KNAPP, Associate Professor in Extension Teaching and Information, New York

■ Public problems are getting more attention from New York State extension workers these days.

Rural people and rural communities are increasingly interested in the larger affairs of public concern—national and international as well as local. This has led the Extension Service to analyze its obligations and opportunities in the general field of public problems, reports Director L. R. Simons.

"There seems to be no doubt that the Extension Service inevitably must enlarge upon its present activities to do the best possible job for farm people," he pointed out.

In New York, an organized and co-ordinated program has been undertaken, though experience in the field of public problems goes back almost to the beginning of the Extension Service. Throughout the years, specialists and agents, along with State and local groups, have dug into such problems as marketing and market organization, rural school organization, price level information, monetary controls, conservation, public health, local government, and public services.

The Idea Gains Momentum

The work has gone ahead under different names but with a definite continuity of purpose as, for example, agricultural conference boards were succeeded by land-use planning committees, agricultural defense committees, and rural policy committees, both State and local.

The farm bureaus have for several years got their executive committees together with extension agents in regional meetings for discussion of public problems. The ideas are then carried back to the counties for further "town meetings" and to promote an informed membership. Last year, Dean W. I. Myers of the College of Agriculture led discussions on such topics as the world food situation and agricultural leadership.

Another group that has taken hold of public problems on many fronts has been the older rural youth. A special

series of leaflets and discussion outlines has helped to stimulate thinking and debate throughout the State on such questions as "Why Farmer Cooperatives?" "Is There a Rural Church Problem?" "Adequate Diets or Farm Surpluses?" and "Good Housing Is Our Problem."

The latest development started last fall at a meeting called by Director Simons to explore possibilities of expanding educational work in public problems. A committee appointed to steer this effort included the secretaries of the State Farm and Home Bureau Federations, two administrative specialists, the State county agent and 4-H leaders, and an assistant home demonstration leader. Later, several specialists were added from rural sociology, agricultural economics, farm labor, household management, and child development and family relationships.

One of the first problems attacked dealt with rural schools, and with proposals to change the State education law to permit permissive action in creating "intermediate districts" in rural areas. Older rural youth district agents and specialists accepted this also as a project and began work on discussion aids. (This was later completed and tried with success at a home bureau citizenship school. After further improvements, the outline will be printed for use in meetings of older rural youth, Grange, Extension, and other groups.)

During Cornell's Farm and Home Week in April, a "panel" was held on rural education, with educators, farmers, school superintendents, college officials, and a member of the State Board of Regents present. The interest was very lively, and this work is continuing.

At other meetings, Director Simons suggested other topics this "over-all committee" might take up—"Where the Food Dollar Goes," the "Research and Marketing Act," "Solving the Food Storage Problem," and "Social Security and Workers' Compensation for Farmers."

It was agreed that for any subject



selected, a subcommittee would be responsible for preparing the factual materials and discussion outlines for use in counties and by local groups.

Suggestions have come thick and fast, indicating that once the ball starts rolling there's hardly any limit to the possibilities. These included a course on public problems in agriculture to be taught in the college, requiring summer work in home communities; that faculty-student forums be organized; that work be undertaken with the Grange, home bureaus, and other groups; that a radio forum be developed using transcriptions for local groups; and that farm forums be tried experimentally in one or two counties. Further, as rural radio network has started in New York State to serve the farm people exclusively, it was decided to check on this medium, possibly offering prominent speakers on opposing sides of each problem.

All in all, as Director Simons says, "We expect this work to grow and develop into channels that may mark another milestone in New York State extension education."

\$5,000 lent to students

Of the many loan funds for students desiring to enter the University of Missouri none is more representative of the people of the State than the fund provided for freshmen students by the farm women of the State who compose the membership of the home economics extension clubs.



Flashes FROM SCIENCE FRONTIERS

A few hints of what's in the offing as a result of scientific research in the U. S. Department of Agriculture that may be of interest to extension workers, as seen by Marion Julia Drown, Agricultural Research Administration, U. S. Department of Agriculture.

Northern Lab Perfects Processes for Industrial Use of Wheat Straw

■ Last year 95 million tons of wheat straw was produced on our farms. Enough of this was burned or wasted to make 20 million tons of cellulose pulp, this country's entire requirement. The Northern Regional Research Laboratory at Peoria, Ill., has as one of its objectives the establishment of industrial uses for such agricultural residues so that they may be turned into a national resource instead of a liability. Recently the laboratory has announced the results of studies on two distinct uses of wheat straw.

A process has been perfected for making pulp for fine papers from the straw. This pulp would not be used alone but as a blend with any of several different kinds of pulpwood to produce the higher grades of paper, such as magazine, book, and writing papers. This should relieve the wood-pulp shortage which is causing prices of paper and paperboard to soar. The laboratory's process produces the paper pulp at lower chemical costs and in significantly higher yields than previously thought possible. The pulp compares very favorably with both hardwood and softwood paper pulps. Some paper companies have indicated their interest.

The other proposed use for wheat straw is as a raw material for insulating building board. Northern Laboratory engineers designed and built much of the pilot-plant equipment used in the experiments. Besides perfecting the manufacturing process, the laboratory has made a study of the feasibility of establishing in farm communities a local industry based on production of such board from wheat straw.

In United States Department of Agriculture Circular 762 the process is described in detail, and the eco-

nomic, merchandising, business and manufacturing problems of a small rural plant are gone into thoroughly. The plant recommended would employ 11 men and turn out 4,500 square feet daily of building board panels 4 by 4 feet square and $\frac{2}{3}$ inch thick. The board will meet commercial specifications.

Progress Report on Soil Residues of DDT

■ Studies under way at the Plant Industry Station, in cooperation with the Bureau of Entomology and Plant Quarantine, to determine the cumulative effects in the soil of DDT when used as an insecticide on crops year after year indicate that in 5, 10, or 20 years the accumulation may interfere with the normal growth of crops grown on the soil. It has been found in experiments that DDT and related insecticidal materials depress the growth of certain plants when as little as 25 pounds per acre has been added to the soil. DDT mixed in greenhouse soils in 1945 has remained toxic to sensitive plants up to the present.

DDT and the related chemicals benzene hexachloride, chlordane, chlorinated camphene, and parathion are insoluble in water and thus do not leach out of the soil. All of them except chlorinated camphene appear to resist the decomposing action of soil bacteria, and all evidence available at present seems to indicate that once these insecticides are in the soil they will remain there for very long periods.

Many crops tested appear to be highly tolerant to large soil residues of these insecticides, but there are marked differences in the response of closely related species and even of varieties. Some varieties of corn, wheat, barley, turnips, cabbage, broccoli, radishes, potatoes, and peanuts

are apparently tolerant to rather large soil residues of DDT.

Oats and rye seem to be more susceptible to DDT than other grains. Blakemore strawberries were very sensitive to DDT residues but tolerant to benzene hexachloride and chlordane. The growth of seedling plants of certain varieties of melons, cantaloups, cucumbers, squash, beets, onions, tomatoes, peas, lima beans, snap beans, and carrots was depressed by 25 pounds per acre of DDT on light soils in the greenhouse.

High concentrations of DDT in soil appear to cause seeds of many plants to be more susceptible to damping-off organisms or to stimulate growth of the fungi. Benzene hexachloride and chlordane, on the other hand, seem to act as fungicides, inhibiting the growth of these organisms in the soil.

How long the chlorinated hydrocarbons will remain in the soil is impossible to tell at present. Tests on them were not begun until 1945, and there has been little if any indication of any decrease of toxicity to sensitive plants so far.

New Method Shows Hidden Weevil Infestation in Wheat and Emphasizes Importance of Fumigation

■ For the first time it is now possible to detect hidden weevil infestation in stored wheat. A simple, inexpensive method of treating grain samples, which makes use of a stain or dye, has been devised by J. C. Frankenfeld of the Bureau of Entomology and Plant Quarantine.

Eggs and immature stages of grain weevils hidden in the kernels of wheat are invisible and have always gone undetected. If there is a heavy infestation, however, flour made from such wheat is contaminated. The new test makes it more important than ever for farmers to fumigate their stored wheat. The weevils puncture the wheat kernels and lay eggs at the bottom of the punctures, which they fill up with a gelatinous material known as an egg plug. Fumigation kills all stages of the weevils and protects the wheat.

In staining the samples of wheat for testing, the grains are covered with the dye solution for 10 minutes and then washed. The egg plugs re-

tain the dye and show up as bright cherry red dots or spots on the kernel. Feeding punctures and mechanical injuries are stained a lighter red.

Bureau entomologists recommend fumigation of all farm wheat bins in August. They suggest a 3-point program, as follows:

1. Before the new grain is stored, sweep walls and floors of bins and clear bins of all last year's wheat and grain bags.

2. Spray or paint walls of empty wooden bins with 2½-percent DDT, using 2 gallons per thousand square feet.

3. In bins to be fumigated, the upper surface of the grain should be at least 6 inches below the top of the bin and should be level. A 3-to-1 mixture of ethylene dichloride and

carbon tetrachloride, or a 1-to-4 mixture of carbon disulfide and carbon tetrachloride may be used. Either of them should be bought already mixed. When the liquid is sprayed or sprinkled over the surface of the grain in the bin, it quickly evaporates, and the vapor sinks down through the grain, killing all insect life. In steel bins use 3 gallons of the 3-to-1 mixture or 2 gallons of the other mixture per thousand bushels of wheat. Use twice as much fumigant in wooden bins, and still more in loosely constructed bins. Spray the fumigant uniformly over the grain from the outside of the bin wherever possible. Use great care in handling these materials. Both they and their vapors are poisonous, so do not get any of the liquid on body or clothing or breathe the fumes.

shuts out noise from the living area of the house.

The next stop was to visit the president of the Illinois Home Bureau Federation, Myra Robinson, Kansas, and see her new office-bedroom reclaimed from an old pantry and store-room. The new office looks out on the drive and her perennial garden. She had done most of the construction work herself. Not every home-maker would tackle the job of putting in two windows, wiring, putting on plywood wall paneling and insulation block on the ceiling, or laying oak flooring; but she did. Unfinished chests were the basis for a built-in dressing table, also built by Miss Robinson.

The new basementless story-and-a-half house of a retired farm family, the Zeis Gumms, was next visited to see their concrete slab floors and painted concrete masonry walls.

The one-story full-basement house of the Lester Honnold family, Rural Route 1, Kansas, had many points of interest. The Honnolds used Exchange Plan No. 7011 from the United States Department of Agriculture and followed it with only minor variations. By doing much of the work themselves, cash outlay was kept down to \$5,000 for materials and \$1,500 for labor, plus cost of equipment.

Good Points Are Charted

The women marveled at the many closets provided, liked the wash-up facilities at the back door on the way to the kitchen-dining nook, and got a thrill out of Mrs. Honnold's dishwasher, which she demonstrated. "With eight at the table, I consider it a great convenience," she said. "The girls like it, too." Grandfather, who lives with them, likes to look out of the big picture window. He also likes the conveniences of water and bath in his daughter's new home.

During the noon hour, Mr. Hinchcliff explained the uses of various building materials and used slides to illustrate good farm home construction and planning. His talk and slides helped those on the tour to know what to look for when they made their rounds.

The most typical comment after the tour was "Let's do this again some time."

Home improvers go "to see"

LAURA E. HEDDLESON, Home Adviser, Edgar County, Ill.

■ On a rainy May 12, 60 Edgar County homemakers, plus a few husbands, found out first-hand what some of their neighbors were doing to improve their homes. After a tour, conducted by Keith Hinchcliff, State housing specialist, and me, comments like these were heard:

"I started out with the idea that I would go home very dissatisfied with what I have to remodel, but I wasn't. I see other people had a lot of difficulties to overcome, too."

"Now we could do that!" and "Those were things I had always wondered about." One homemaker said: "It was one of the nicest things Edgar County has ever done."

The tour was a follow-up for a home-improvement lesson series for local leaders of the year before, at which time four lessons—architectural remodeling, building materials, heating systems, and water systems—were given. In the fall of 1947 I asked what housing improvements had been made the past year and whether those who had made improvements would be willing for visitors to see what they had done. Several were chosen from those who had offered their homes.

The first stop was at the J. L. Win-

an's home, Rural Route 6, Paris. Here the family had the problem of an 80-year-old brick house and a kitchen with the usual "too big and too many doors" problem. By taking out a back stairway and closing three doors, the kitchen assumed the convenience of a compact U-type with space left over for a utility and wash-up room. There was also room for a dining nook next to a new wide window.

At stop No. 2, the Robert Frazier home of Scotland, a front porch of a one-story four-room house had become the new living room and the back porch a convenient kitchen. A feature that might solve a tenant homemaker's problem was the home-made plywood cabinets that could be removed if desired. The additions were made by Mrs. Frazier's father at a most reasonable cost.

At the Dean Watson's home on Route 3, Paris, visitors found that an oversized bedroom next to the kitchen had provided enough space for a modern bathroom and a play-guest room with a storage wall next to the living room. The storage wall, besides providing for plenty of storage,

Among Ourselves

■ WILLIAM G. SMITH, Henry County, Ind., agricultural agent for the last 21 years, received a tribute from the Henry County Rural Youth group when they presented his portrait to the county. The portrait was hung in the conference room of the extension offices in the Federal Building at New Castle. The portrait in beautiful sepia tones bears the following inscription on a brass plate mounted in the lower edge of the frame:

"Portrait of W. G. Smith, presented to Henry County by the Rural Youth group in esteem and appreciation of his devoted services as county agricultural extension agent."

■ MRS. GLADYS SCRANAGE MEADOWS, formerly State girls' club agent of West Virginia, died May 31. Mrs. Meadows began her extension work as club agent in Randolph County in 1921. In her youth Mrs. Meadows was an outstanding 4-H Club girl and attended the first 4-H-organized club camp ever held at Jackson's Mill. Later she served as a home demonstration agent and district agent and in 1934 became State girls' club agent. After her marriage in 1939 Mrs. Meadows left the service to become a homemaker. She was later appointed as county club agent in Boone County where she worked until she resigned in 1946. At the time of her death Mrs. Meadows had been very active in women's garden club work.

■ MRS. JANIE F. FLETCHER, county home demonstration agent of Waller County, has been appointed to the Board of Regents for Texas State College of Women by Gov. Beaufort Jester.

Mrs. Fletcher was graduated from Texas State College for Women in 1919 and has done graduate work at Columbia University, New York, and the University of California, Berkeley. She taught home economics in the high schools at Cuero, Ozona, and Plainview, Tex.

She was first appointed county home demonstration agent in Baylor County in 1923 and resigned at the end of that year to marry Carney B. Fletcher.

In 1939 she was appointed home supervisor for the Farmers Home Administration in Limestone County. She rejoined the Extension Service in 1947 as county home demonstration agent for Waller County.

Both of her children live on the campus at Texas A. & M. Her son, Carney B., will graduate in June from the School of Engineering. Her daughter, Dorothy, is the wife of Thomas N. Belew, who will graduate in August, also from the School of Engineering.

■ EARLE K. RAMBO, extension agricultural engineer of Arkansas, who has been in Panama, returned to his work in Arkansas in May.

Mr. Rambo, a graduate of the Clemson Agricultural College of South Carolina, has been with the Arkansas Extension Service since 1941. Last year he was granted a year's leave of absence to go to Panama as agricultural engineering adviser to the Min-



Earle K. Rambo and Col. Daniel S. Stevenson, Chief, United States Army Mission to Panama, were awarded the Order of Vasco Nunez de Balboa in the grade of Comendador.

istry of Agriculture and Commerce. While in Panama, he made numerous trips to the interior to study agricultural practices now in use and to assist tractor and machine operators with proper adjustment and maintenance of the equipment in use.

A 3-week farm machinery short course was held at the Instituto Nacional de Agricultura for 66 Department of Agriculture employees, which laid the foundation for more efficient operation, care, maintenance, and repair of the government-owned machines which are being used to demonstrate that farm machinery can be used in Panama efficiently. Farm machinery distributors, petroleum distributors, and rubber tire companies furnished technicians to help with the instruction in this school. Technicians assisting came from Argentina, Costa Rica, Mexico, Guatemala, and Panama.

This was familiar work for Mr. Rambo who had initiated annual tractor schools in Arkansas to meet expanded wartime crop goals when new machinery could not be bought. An estimated 8,000 farm men and boys were trained to service and operate tractors more efficiently. In 1947, more than 1,200 4-H Club boys enrolled in the 4-H tractor maintenance contest in Arkansas, which Mr. Rambo started in 1946 and 1947.

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